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NOTICE OF ALLOWANCE AND FEE(S) DUE

50576 7590 03/08/2010 KINNEY & LANGE, P.A. 312 SOUTH 3RD STREET THE KINNEY & LANGE BUILDING

MINNEAPOLIS MN 55415

EXAMINER BLOUIN, MARK S PAPER NUMBER ART UNIT

2627 DATE MAILED: 03/08/2010

APPLICATION NO. FILING DATE FIRST NAMED INVENTOR ATTORNEY DOCKET NO. CONFIRMATION NO. 10/701.994 11/05/2003 Michael Mallary S895.12-0105 6624

TITLE OF INVENTION: SHIELDED POLE WRITER UNDER READER

APPLN, TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(8) DUE	DATE DUE
nonprovisional	NO	\$1510	\$0	\$0	\$1510	06/08/2010

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. <u>PROSECUTION ON THE MERITS IS CLOSED.</u> THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown

B. If the status above is to be removed, check box 5b on Part B -Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

or Fax (571)-273-2885

INSTRUCTIONS: This appropriate. All further indicated unless correcte maintenance fee notificat	correspondence including d below or directed off	or tran	nsmitting the ISSU Patent, advance or in Block 1, by (a	rders and notification of a) specifying a new corre	maintenance fees v spondence address	vill be ; and/o	mailed to the current r (b) indicating a sepa	hould be completed where correspondence address as trate "FEE ADDRESS" for
CURRENT CORRESPONDENCE ADDRESS (Note: Use Block I for any change of address)				Noi Fee pap bay	Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.			
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MINNEAPOLIS	, MN 55415							(Depositor's name)
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APPLICATION NO.	APPLICATION NO. FILING DATE		FIRST NAMED INVENTOR		t .	ATTORNEY DOCKET NO.		CONFIRMATION NO.
10/701,994	11/05/2003			Michael Mallary			S895.12-0105	6624
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nonprovisional	NO		\$1510	\$0	\$0		\$1510	06/08/2010
EXAM	INER		ART UNIT	CLASS-SUBCLASS				
BLOUIN,	MARK S		2627	360-317000				
"Fee Address" indi PTO/SB/47; Rev 03-0 Number is required. 3. ASSIGNEE NAME A	ondence address (or Cha 1/122) attached. cation (or "Fee Address 2 or more recent) attach ND RESIDENCE DAT. cess an assignee is ident in 37 CFR 3.11. Comp	nge of " Indic ed. Us	Correspondence ation form e of a Customer BE PRINTED ON	2. For printing on the (I) the names of up to or agents OR, alternati (2) the name of a sing registered attorney or 2 registered patent att listed, no name will be THE PATENT (print or ty data will appear on the 1 The substitute for filing an (B) RESIDENCE: (CITT)	o 3 registered pater vely, le firm (having as a agent) and the nam ymeys or agents. If printed. pe)	n memb es of u no nan	p to p to see is 3	ocument has been filed for
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Advance Order - # of Copies			The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number (enclose an extra copy of this form).					
	SMALL ENTITY state	ıs. See	37 CFR 1.27.	☐ b. Applicant is no lor				
NOTE: The Issue Fee and interest as shown by the r	Publication Fee (if req ecords of the United Sta	uired) tes Pat	will not be accepted and Trademark	d from anyone other than Office.	the applicant; a reg	istered	attorney or agent; or th	e assignee or other party in
Authorized Signature					Date			
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This collection of inform an application. Confident submitting the completed this form and/or suggesti Box 1450, Alexandria, V Alexandria, Virginia 223	ation is required by 37 C iality is governed by 35 I application form to the ons for reducing this bu irginia 22313-1450. DO 13-1450.	FR 1.3 U.S.C USPT den, sl NOT	811. The informatic . 122 and 37 CFR [O. Time will vary hould be sent to the SEND FEES OR (on is required to obtain or 1.14. This collection is es depending upon the indi e Chief Information Offic COMPLETED FORMS T	retain a benefit by timated to take 12 vidual case. Any co er, U.S. Patent and O THIS ADDRES:	the pub minute ommen Trader S. SEN	lic which is to file (and s to complete, includin is on the amount of tir nark Office, U.S. Dep D TO: Commissioner	I by the USPTO to process) g gathering, preparing, and ne you require to complete utment of Commerce, P.O. for Patents, P.O. Box 1450,

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PTOL-85 (Rev. 08/07) Approved for use through 08/31/2010.



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THE KINNEY & MINNEAPOLIS.	LANGE BUILDING	2627		
MINNEAPOLIS,	MIN 33413	DATE MAIL ED: 03/08/2010		

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 446 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 446 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

Application No. Applicant(s) 10/701 994 MALLARY ET AL Notice of Allowability Examiner Art Unit MARK BLOUIN 2627 -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS. This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308. This communication is responsive to NOA filed 5/6/09. The allowed claim(s) is/are 1,2,8-13,17,18,30-35 and 39-42(renumbered 1-20). 3. Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). b) \(\subseteq \text{Some* c) \subseteq \text{None of the:} a) \square All 1. T Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No. 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)). * Certified copies not received: _____. Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. THIS THREE-MONTH PERIOD IS NOT EXTENDABLE. A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient. CORRECTED DRAWINGS (as "replacement sheets") must be submitted. (a) Including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached 1) hereto or 2) to Paper No./Mail Date (b) including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d). 6. DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL. Attachment(s) 1. | Notice of References Cited (PTO-892) 5. Notice of Informal Patent Application 2. Notice of Draftperson's Patent Drawing Review (PTO-948) Interview Summary (PTO-413), Paper No./Mail Date Information Disclosure Statements (PTO/SB/08). 7. T Examiner's Amendment/Comment

Paper No./Mail Date

of Biological Material

4. T Examiner's Comment Regarding Requirement for Deposit

9. ☐ Other .

8. X Examiner's Statement of Reasons for Allowance

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Detailed Action

Reasons for Allowance

- Claims 1,2,8-13,17,18,30-35, and 39-42 (renumbered 1-20) are allowed.
- The following is an examiner's statement of reasons for allowance:

This application is for a read/write head.

- · Claim 1 specifies a read/write head, which requires:
 - "...a shield located between the write element and the magnetoresistive sensor, wherein a distance between the write pole tip and the substrate is less than a distance between the shield and the substrate; and wherein the magnetoresistive sensor is located between the write pole tip and the trailing edge of the read/write head."
- Claim 12 specifies a read/write head, which requires:
 - "...a read element formed adjacent the write element, on an opposite side of the write element from the substrate; wherein the read element includes a pair of read shields and one of the pair of read shields is magnetically connected to the write element; wherein the write element includes a write pole and a write shield that is magnetically connected to the write pole; wherein a distance from the write pole to the soft underlayer falls within a range from approximately equal to a distance from the write shield to the write pole to approximately twice the distance from the write shield to the write pole to approximately twice the distance from the write shield to the write pole approximately twice the distance from the write pole and the trailing edge of the read/write head."
- · Claims 30 and 34 specify a read/write head, which requires:
 - "... a first read shield proximate to the write shield and located on an opposite side of the write shield from the substrate; a second read shield proximate to the first read shield and located on an opposite side of the first read shield from the write poles, and a magnetoresistive sensor located between the first and second read shields; wherein a distance between the write pole tip and the substrate is less than a distance between the write shield and the substrate, a distance between the first read shield and the substrate, and wherein the magnetoresistive sensor is located between the write pole tip and the tailling edge of the read/write head."

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The prior art of record fails to teach, show or suggest, by either anticipating or rendering obvious, the invention as set forth in the claims of the instant application. Furthermore, a search made does not detect the combined claimed elements as set forth in the pending claims.

Additionally, the reasons for allowance of the claims over the prior art of record is believed to be readily clear, self evident and apparent from the claim language set forth in each of claims 1,12,30, and 34 when compared and contrasted with the prior art.

Therefore, these features, in combination with other features of claims 1,12,30, and 34 are not anticipated by, nor made obvious over, the closest prior art of record as indicated on PTO Form 892.

3. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark Blouin whose telephone number is 571-272-7583. The examiner can normally be reached on M-F from 6:00 to 3:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Joe Feild, can be reached on 571-272-4090. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

Art Unit: 2627

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Mark Blouin/

Primary Examiner of Art Unit 2627

Mark Blouin Patent Examiner Art Unit 2627, March 1, 2010